

ISO 14001 Assessment of Brookhaven National Laboratory (BNL) 2008 Environmental Management System (EMS) FINAL AUDIT PLAN

[01/16/08, Rev.0]

1.0 CONFIDENTIALITY: Draft copies of the audit report are not approved for public release. The final report will be issued as an Executive Summary accompanied by a detailed checklist.

2.0 DISTRIBUTION OF REPORT:

- **Draft Report** - *To be provided by BNL.* Recommend distribution to potential corrective action management system owners, and appropriate management.
- **Final Report:** *To be provided by BNL.* Recommend distribution to corrective action management system owners and top management. BNL to distribute informational copies of final report to other interested parties.

3.0 ORGANIZATION AUDITED: Brookhaven National Laboratory (BNL), Upton, NY

3.1 ORGANIZATION POINT OF CONTACT: John Selva, Environmental & Waste Management Services Division, Field Services Supervisor/EMS Program Manager, Brookhaven National Lab, PO Box 5000, Upton, NY 11973. Phone: (631) 344-8611, FAX (631) 344-3223. E-mail: selva@bnl.gov

3.2 SCOPE OF AUDIT:

- The scope of the EMS audit is the BNL campus in Upton NY. As much time as possible will be spent in the field.
- The elements that will be the focus of this audit include:
 - **Communication**
 - **Documentation**
 - **Control of Documents**
 - **Operational Control, including clear flow down of requirements to workers**
 - **Emergency Preparedness and Response**
 - If other elements (such as records) are assessed, there should be a clear link to one of the above five elements.
 - The scope includes a sampling of all Directorates, and if time allows, all Divisions. The Directorates that will be the focus of this assessment (in addition to follow-up evaluation of the institutional program) are:
 - Nuclear and Particle Physics: C-AD, Magnet, Instrumentation, Physics (Need to sample each division here)
 - Basic Energy Sciences: Chemistry, Condensed Matter Physics & Material Science (CMPMSD), Center for Functional Nanomaterials (CFN)
 - Light Source (NSLS I. NSLS II is still in design mode.)
 - Life Sciences: Biology, Medical, NASA operations
 - EENS: Environmental Sciences Department, Energy Sciences and Technology Department, Nonproliferation and National Security Department
 - F&O: Plant Engineering, Safeguards & Security, Central Fabrication Services, Emergency Services, Staff Services
 - Environmental Restoration

- ES&H / Directors Office - All of ESH and Balance of Plant (primarily CEGPA, Quality Management Office and Information Technology Division)

4.0 AUDIT OBJECTIVES:

- Evaluate system effectiveness at achieving the commitments in the environmental policy.
- Evaluate implementation of the EMS (relative to ISO 14001 Program Description) in select line organizations.
- Evaluate areas identified during previous EMS as needing further follow up (see Section 4.8).
- Evaluate whether the EMS is being properly maintained.
- Evaluate continual improvement of the EMS (e.g., follow-up and implementation of corrective actions identified in previous audits, plans for further improvement of the EMS).
- Assess EMS strengths and opportunities for improvement. Suggest focus areas for future audits.

4.1 AUDIT CRITERIA:

- ISO 14001: 2004 Environmental management systems – Specifications with guidance for use
- Program Description: ISO 14001 Plus Environmental Management System Manual, Effective Date: Jul 31, 2001 (Reviewed: Feb 15, 2005)

4.2 APPLICABLE AUDITING GUIDELINES:

- ISO 19011:2002, Guidelines for quality and/or environmental management systems auditing Environmental Assessments and ESH Management Review, May 16, 2007

4.3 AUDIT SCHEDULE

Period Covered: Current status as of date of desk audit.

Dates Conducted: See schedule below.

Audit Tasks and Dates:

January 15	Prepare draft audit plan and submit to BNL for comment
January 16	Receive BNL comments on draft audit plan and checklist
January 16	Submit final draft audit plan to BNL
January 22	BNL approval of final draft audit plan
January 15	Provide BNL with list of any documents needed for desk audit
January 25	BNL compiles documents to be reviewed, FedEx to team/provide e-mail link
January 25	Finalize onsite interview schedule. Discuss strategy and data needed
January 25	BNL notifies organizations to be assessed by e-mail and schedules interviews
February 4	Desk audit begins (conducted offsite)
February 7	Desk audit ends, concerns and questions in writing to BNL
February 7	Discuss response to concerns and questions, determine if any changes to onsite audit (e.g., interviews) are needed
February 10	Travel to BNL
February 11	Pre-Assessment opening morning meeting (presentation by audit team and BNL POC), onsite audit begins
February 15	Onsite audit ends. Prepare for Outbrief in morning, conduct Outbrief early afternoon to review findings. Provide PowerPoint presentation with preliminary results to BNL
February 25	Discussions with BNL as needed.

February 29	Team provides write-ups for checklist to audit lead
March 7	Draft summary report submitted to BNL
March 21	Receive comments from BNL on report
March 28	Submit final report to BNL
March 31	BNL issues and distributes report
June 16	NSF-ISR audit

4.4 AUDITORS:

Elizabeth A. Zimmerman, Lead (EMS)

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Other members of audit team:

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4.5 AUDIT APPROACH: Review relevant documents developed/modified/finalized since previous audit, and other documents requested. Evaluate areas identified for further evaluation (Section 4.8). Evaluate implementation progress since previous audit. Conduct interviews as necessary (e.g., with top management, ES&H Manager, Environmental program manager, EMS Management Representative, audit Point of Contact, EMS Project Manager, EMS Representatives, management systems stewards, line managers and staff, contractors and others working for or on behalf of organizations with environmental aspects), as per Section 4.7.

An executive summary/cover report and an EMS checklist will be prepared. Nonconformities will be documented on the EMS checklist. Recommendations for improvement that are not related to nonconformities may be documented in a separate memo.

Conduct opening and closing meetings, with attendance to be determined by BNL. (Recommended attendees: top management, DOE, and staff who are slated for interviews during the audit). Daily debriefings will be held with the ISO 14001 Program Manager and the Independent Oversight Manager, and a DOE representative. During the onsite portion of the assessment, draft summaries of nonconformities will be provided to the point of contact for review and comment. The presentation at the closing meeting will summarize findings.

4.6 AUDITEE RESPONSIBILITIES (in addition to tasks/responsibilities listed above).

Documents to be provided by BNL: See list provided. Access to a meeting room, office, telephone and computer with internet access to be used during onsite audit to be provided by BNL. Scheduling and arrangement of meeting rooms (with AV equipment to project for auditor

laptop) for opening meeting and outbrief. BNL point of contact to make administrative support available as needed. BNL Point of contact will develop and maintain interview schedule with input from the lead auditor, providing updates as needed, and provide notification to interviewees. John Selva will provide onsite technical support as needed.

4.7 INTERVIEW SCHEDULE

Also see detailed BNL schedule dated 01/16/08.

ISO 14001:2004 Clause	Auditor	BNL Primary Contacts
General requirements		EMS Coordinator/author of EMS Manual
Environmental Policy	Assessed in 2007	Lab Director, Deputy Directors, VPs/Level 1s, interviews of employees and persons working for or on behalf of organization (including contractors, students).
Environmental aspects	Assessed in 2007	Person who leads aspects analysis/review (personnel to see if they understand hazards associated with their work).
Legal & other requirements	Assessed in 2007	Environmental subject matter experts, persons who conduct reviews of proposed/final regulations to determine applicability, people who document determinations (sometimes these are quality folks)
Objectives, targets & programs	Assessed in 2007	Managers, staff responsible for achieving objectives and targets, EMS coordinator, sometimes quality (if they track performance measures)
Resources, roles, responsibility & authority	Assessed in 2007	Human resources, managers of staff involved in work with significant aspects.
Competence, training & awareness	Assessed in 2007	training coordinators, training Program Manager, person who maintains databases/records of training.
Communication	Zimmerman	Communications/public relations staff, EMS staff involved in internal communications
(EMS) documentation	Zimmerman	Primarily author of EMS Manual
Control of documents	Zimmerman	Program Manager, people who generate documents (procedures, etc.)
Operational control	Skipper	Environmental subject matter experts, line managers, workers, procurement/contracts, facilities and operations/construction and maintenance services, work planning, waste management personnel, waste water treatment operators
Emergency preparedness &	Skipper	Program Manager, workers

ISO 14001:2004 Clause	Auditor	BNL Primary Contacts
response		
Monitoring & measurement		Quality folks/whoever tracks performance on objectives and targets; calibration staff/contractors, personnel involved with environmental monitoring systems
Evaluation of compliance		Person who “owns” procedure(s) on compliance evaluations, environmental subject matter experts/field support, quality organization (self-assessment program)
Nonconformity, corrective & preventive Action		Program Manager, owners of corrective actions
Records		Program Manager, people required to maintain records (training, calibration, people who maintain audit records, environmental subject matter experts, etc.)
Internal (EMS) audits		EMS coordinator, Program Manager (often quality/independent oversight/audits), auditors
Management review	Assessed in 2007	EMS coordinator, top management.

4.8 AREAS IDENTIFIED AS NEEDING FURTHER EVALUATION IN PREVIOUS EMS AUDIT

The following items related to the elements selected for review during this assessment were identified during previous audits or during discussions with the BNL.

- Corrective and preventive actions, including effectiveness and evaluation of extent of condition (e.g., revised Management Review Subject Area)
- Document Control after planned corrective actions to program are implemented
- Emergency Preparedness & Response
- NASA Operations

4.9 DOCUMENTS REQUESTED FOR DESK AUDIT

- Environmental policy
- EMS documentation (describing core elements and their interaction, and providing direction to related documentation – E.g., EMS Manual or Program Description)
- Annual Site Environmental Report

RECORDS

- Communication from external parties (review while onsite)
- Decision on communicating environmental aspects
- Communication/correspondence concerning procedures and requirements to suppliers and contractors (review while onsite)
- Test reports (i.e., drills) for emergency preparedness & response
- Environmental ORPs Reports for the past two fiscal years

- Previous EMS internal or external report findings associated with selected elements, and corrective action reports (including corrective action plan for document control)

PROCEDURES

Documented Procedures required:

- *Operational Control*: procedures to cover situations where their absence could lead to deviations from the environmental policy & objectives and targets" (e.g., related to P2, compliance, continual improvement initiative)

Other Written Procedures if they exist (not required to be documented) on:

- Communication
- Document control and creation/modification of documents
- Communication of procedures/requirements to contractors/suppliers
- Identify potential for, and response to, accidents and emergencies
- Identification, maintenance & disposition of records